

Claims

added 927 claims 21-47 Add B14

1. A trolley control wheel assembly adapted to be fitted to a trolley having a longitudinal axis of travel and an array of castors, which assembly includes a fixed wheel or wheels adapted to be positioned at or near the load centre of the trolley or at or near the centre of the array and which includes a bias means and a damping means to provide controlled contact between the wheel or wheels and a surface on which the trolley is intended to travel.
2. A trolley control wheel assembly as claimed in claim 1 in which the load centre of the trolley and the centre of the array of castors coincide.
3. A trolley control wheel assembly as claimed in claim 1 or 2 in which the force of the bias means is independent of the load on the trolley.
4. A trolley control wheel assembly as claimed in any one of claims 1 to 3 in which the bias means and the damping means are jointly provided by a gas strut.
5. A trolley control wheel assembly as claimed in any one of claims 1 to 4 in which the trolley preferably has four castors which are preferably disposed at or near the corners of the trolley or disposed effectively at or near the corners of the trolley.
6. A trolley control wheel assembly as claimed in any one of claims 1 to 5 in which, in order to facilitate lateral manoeuvring of a trolley, there is preferably provided a lifting means to lift the wheel of the control wheel assembly out of contact with the floor or other travel surface to enable the trolley to be more readily moved at right angles to the customary desired direction of movement or travel.
7. A trolley having a longitudinal axis of travel and having an array of castors fitted thereto and a trolley control wheel assembly which includes a fixed wheel or wheels positioned at or near the load centre of the trolley or at or near the centre of the array and which includes a bias means and a damping means to provide controlled contact between the wheel or wheels and a surface on which the trolley is intended to travel.
8. A trolley as claimed in claim 7 in which the load centre of the trolley and

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the centre of the array of castors coincide.

9. A trolley as claimed in claim 7 or 8 in which the force of the bias means is independent of the load on the trolley.

10. A trolley as claimed in any one of claims 7 to 9 in which the bias means and the damping means are jointly provided by a gas strut.

11. A trolley as claimed in any one of claims 7 to 10 in which the trolley preferably has four castors which are preferably disposed at or near the corners of the trolley or disposed effectively at or near the corners of the trolley.

12. A trolley as claimed in any one of claims 7 to 11 in which, in order to facilitate lateral manoeuvring of a trolley, there is preferably provided a lifting means to lift the wheel of the control wheel assembly out of contact with the floor or other travel surface to enable the trolley to be more readily moved at right angles to the customary desired direction of movement or travel.

13. In a trolley having a longitudinal axis of travel and having an array of castors on which the trolley can be moved from place to place in the general direction of the longitudinal axis of the trolley or otherwise, the improvement which comprises the provision of a control wheel assembly, which assembly includes a fixed wheel or wheels positioned at or near the load centre of the trolley or at or near the centre of the array and which includes a bias means and a damping means to provide controlled contact between the wheel or wheels and a surface on which the trolley is intended to travel.

14. A trolley as claimed in claim 13 in which the load centre of the trolley and the centre of the array of castors coincide.

15. A trolley as claimed in claim 13 or 14 in which the force of the bias means is independent of the load on the trolley.

16. A trolley as claimed in any one of claims 13 to 15 in which the bias means and the damping means are jointly provided by a gas strut.

17. A trolley as claimed in any one of claims 13 to 16 in which the trolley preferably has four castors which are preferably disposed at or near the corners of the trolley or disposed effectively at or near the corners of the trolley.

18. A trolley as claimed in any one of claims 13 to 17 in which, in order to facilitate lateral manoeuvring of a trolley, there is preferably provided a lifting

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~~means to lift the wheel of the control wheel assembly out of contact with the floor or other travel surface to enable the trolley to be more readily moved at right angles to the customary desired direction of movement or travel.~~

19. A castored trolley, control wheel assembly which includes a fixed wheel
5 or wheels or wheel equivalent which includes a bias means and a damping means to provide controlled contact between the wheel or wheels and a surface on which the trolley is intended to travel.

20. A castored trolley, control wheel assembly as claimed in claim 19 in which the bias and the damping are both provided by a gas strut.

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